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It's great to think about difficult issues in a safe and supportive environment: Scenario-based Learning in Early Childhood Teacher Education

Abstract

Early Childhood preservice teachers often experience a theory/practice divide between their university studies and actual classroom practice. Yet, as Adam (in Errington 2010) notes, “there is a certain 'complementarity' between theory and practice that is perhaps most productive at the nexus between the two” (97). Scenario-based learning (SBL) is a means through which that nexus can be explored; theory applied to practice; and preservice teachers more supported in their transition to professional practice. SBL is based on Lave and Wenger’s (1991) concept of situated learning, where apprentices are ‘schooled’ in the ways of the profession by expert practitioners, in what they term, ‘legitimate peripheral participation’. Scenarios are hypothetical situations created to situate learners in a "real life" context within the safety of the classroom and as a way to practice and trial ways of responding to various professional issues.

In this research, SBL was introduced into an online Early Childhood Education university subject and developed over a number of years using an Action Research framework. Through learner and colleague feedback and critical reflection, scenarios have been refined to more closely align with learner needs and changes to early childhood policy and practice. This paper reports on the process of developing scenario-based learning, from its inception through to its current delivery.

Introduction

In early childhood preservice teacher education, scenario-based learning (SBL) is an ideal way for students to “bridge perceived gaps between subject theory and professional practice” (Errington 2010, 17). Based on situated learning theory, SBL “incorporates contextualized knowledge [and] uses the act of creating a scenario as a teaching/learning mechanism to resemble authentic situations” (Ireland et al 2014). SBL serves as a method by which students can apply understandings of their readings and lectures to contexts that they will encounter in their future professional practice; allowing them the opportunity to reflect and prepare thoughtfully for situations within the safety of the tertiary learning environment. As Adam (“Schooling for Hard Knocks”: in Errington 2010) suggests, “University-based theory and classroom practice are by no means mutually exclusive” (97). Scenario-based learning (SBL) is a means through which the theory/practice nexus can be explored; theory applied to practice; and preservice teachers more supported in their transition to professional practice.

SBL is a learning strategy designed to engage learners in processes of problem-solving, decision-making, critical thinking, generating perspectives, and acting creatively in relation to assumed roles, responsibilities, dilemmas and challenges similar to those found in the professional culture (Errington 2010). Authentic, work-related activities can actively encourage learners to communicate and collaborate effectively, demonstrate mature perspectives, and elicit ethical behaviour - in the shared pursuit of personal and professional development

This paper describes an Action Research project conducted in a university setting over a number of years. SBL was introduced into an online Early Childhood Education university

subject and, through critical reflection, learner feedback and a collaborative peer review process, has been refined to increasingly align with changes to early childhood policy and practice and student learning needs. Based on the MacNaughton and Hughes' (2009) Action Research model. This model designated four phases of research, the first of which is choosing to change. The choice to change seemed obvious to me, as a reflective practitioner, as feedback from students indicated to me that more needed to be done to connect university studies with experiences students would have in their professional placements and their future careers. The next two phases: planning for change and creating change have become ongoing action research cycles with yearly delivery of the subject. They have included extensive learner and colleague feedback, including a collaborative peer review process that brought breadth and depth to this inquiry. The final phase, sharing the lessons of change, has included national and international presentations and publications as the community of educators implementing SBL increases.

Scenarios and Education

Scenarios are authentic 'glimpses' of everyday issues. They are often written or told as narratives, and provide situated learning in 'real world' contexts. According to Lave and Wenger (1991), 'real world' contexts are critically important for professional knowledge acquisition, and so apply not only to the teaching profession but to many other professions as well. In the 'real world', and particularly so in this century, there are usually multiple pathways that can be taken to address workplace issues.

Scenarios offer a medium through which learners can safely explore ways to respond to situations they could encounter in their future professions. (Aitken in Errington 2010).

These situations often demand moral or ethical decisions. Like most professions, early childhood education is guided by a code of ethics, to assist practitioners to act morally and ethically in relation to children, families, colleagues and the wider community. Early Childhood Australia's (2006) Code of Ethics encourages practitioners to "take action in the face of injustice and when unethical practice occurs" (3). It outlines behaviours in relation to: children, families, colleagues, communities, students, employers, oneself as a professional, and the conduct of research. As an example, some key features in relation to children are:

- *Create and maintain safe, healthy environments, spaces and places, which enhance children's learning, development, engagement, initiative, self-worth, dignity and show respect for their contributions*
- *Work to ensure children are not discriminated against on the basis of gender, age, ability, economic status, family structure, lifestyle, ethnicity, religion, language, culture, or national origin* (Ibid, 5).

These and other ethical issues are as relevant for school as for prior to school teaching. In the school years, in the Australian Curriculum (national curriculum for Foundation to Year 10 [5 – 15 year olds]) includes ethical understanding as a 'general capability', that is, a capability that "encompass[es] the knowledge, skills, behaviours and dispositions that, together with curriculum content in each learning area and the cross-curriculum priorities, will assist students to live and work successfully in the twenty-first century" (Australian Curriculum and Assessment Reporting Authority [ACARA] 2010). ACARA notes of ethical understanding: "Students learn to develop ethical understanding as they explore ethical issues and interactions with others, discuss ideas, and learn to be accountable as

members of a democratic community”. While ACARA (2010) refers here to school-aged students, it is clear that this also applies to preservice teachers, who will become these students’ teachers and thus the ones who offer children early educational experiences that set the path for their future as learners.

SBL is becoming increasingly popular in Tertiary Education (Errington 2010). SBL was implemented in an online early childhood education subject to help preservice teachers to explore moral and ethical professional issues they could potentially encounter in their future professional lives, in the protective context of an online learning community.

According to Lave and Wenger (1991) novices or apprentices to a profession should be given access to arenas of professional practice and become a part of the community to truly engage with the learning. In this way they develop their professional identity. Errington (2011) notes, “SBL can provide focused learning contexts in which aspiring professionals are introduced to the culture, language, mores, values, roles, and ethics of the intended profession” (5) and in this way are forming their professional identities. By experiencing professional issues through scenarios, it was anticipated that preservice teachers would match their prior experience and beliefs about teaching and learning with their growing sense of professional identity as early childhood teachers.

A scenario-based approach gives authenticity to learning. Lombardi (2007) defines authentic learning as learning that “typically focuses on real-world, complex problems and their solutions, using role-playing exercises, problem-based activities, case studies, and participation in virtual communities of practice” (2). Authenticity comes from making these contexts as realistic as possible (Akins and Crichton 2003) to provide a vehicle for learners to engage with ‘real world’ problems through collaborative learning teams, or

“communities of practice” (Lave and Wenger 1991). Lave and Wenger (1991) define learning as an ongoing professional socialization process within a learning community. In SBL, learners become immersed in the situation and can take on roles of characters in the scenario, as they are required to engage, investigate further, collaborate and reflect on the issues presented; ultimately determine and justifying actions and outcomes (Akins and Crichton 2003).

In scenarios developed through this research, some, but not all of the necessary information is given. The rest needs to be discovered or constructed through research, reflection and collaboration. This is purposeful, as it reflects ‘real life’ situations where educators have access to some, but not all the necessary information. Because of this, previous knowledge and experience become valuable and valued, along with the communication skills necessary to gather further information. There is never one set answer or pathway to a solution.

Errington (2005) identified four distinct types of scenarios: skills-based; problem-based; issues-based and speculative. Skills-based scenarios are a way in which learners can demonstrate their acquired skills and knowledge. Problem-based scenarios present learners with a problem, and it is through resolving this problem that they identify issues and practice and refine acquired skills. Issues-based scenarios go a step further, requiring learners to investigate and subsequently debate relevant professional issues. Speculative scenarios are designed to allow learners to apply their knowledge to hypothetical situations that they might encounter professionally (Ibid). The scenarios in this research are mainly ‘problem-based’; they focus on specific professional problems, requiring learners to first

identify the problem or dilemma; and then to practice and refine skills necessary to resolve the problem.

A scenario-based approach suits problems with potentially multiple solutions (Akins and Crichton 2003). In preparing preservice teachers for situations they might encounter in their future practice, issues of moral and ethical practice are often problems with multiple solutions, where there is not a 'one fit for all' answer. These scenarios, then, challenge learners to investigate deeply and devise unique responses to each problem. Through deep and thorough investigation, as well as taking on the roles of the characters in the scenario, learners become immersed in and engaged with their learning; both individually and in a community of learners.

SBL in this research was first trialed in 2003. Since its original inception, the process has been refined over the years through action research cycles. In 2010 – 2011, the action research included a collaborative peer review process, where academics from a variety of disciplines within the Humanities scaffolded each other's development and implementation of SBL through a step-by-step peer review process that supported and challenged our use of SBL. As it exists today in the subject, SBL is a much-refined version of the original; as I have critically reflected upon feedback from learners and colleagues as well as my own observations and records. Further, scenarios have been updated to reflect current early childhood policy and practice. What has remained constant is the approach: scenarios as legitimate peripheral participation (Lave and Wenger 1991).

Method and Findings

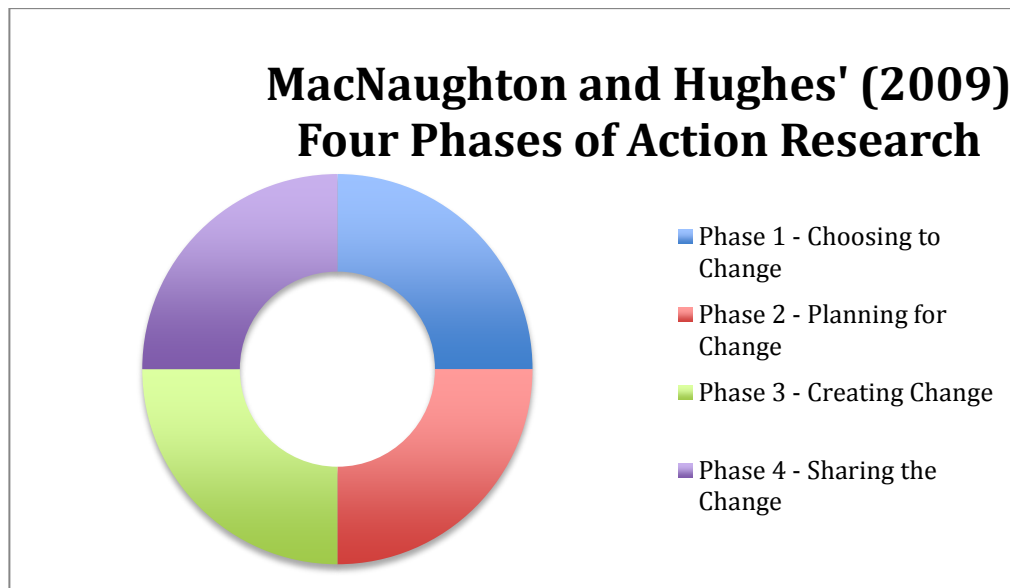
Within the Qualitative paradigm, Action Research was chosen the method for this research as it is a way of understanding and refreshing our professional practice (MacNaughton and

Hughes 2009). MacNaughton and Hughes' (2009) define Action Research as “a cyclical process of ‘think-do-think’ to research and create change” (1). They note:

We think about what we do at present, then we do something to create change, then we think again about what we’ve done and its effects. Or thinking informs our practice; and our practice informs our further thinking” (1).

In Action Research, method and findings are intertwined as it is through gathering data and determining findings that new cycles of research can be implemented. In this paper, each of four phases of the MacNaughton and Hughes' (2009) Action Research process (Figure 1 below) is described, along with findings relevant to the stage.

Figure 1. MacNaughton and Hughes' (2009) Four Phases of Action Research



Phase 1 – Choosing to Change

In the first of MacNaughton and Hughes' (2009) four phases, the researcher 'chooses to change'. This phase often derives from confusion, uncertainty or dissatisfaction with current practice. In research I had undertaken prior to 2003, preservice teachers had reported a large gap between university studies and classroom teaching (Sorin 2002).

Comments from students included that the Bachelor of Education course, "cannot hope to expose us to the myriad of emotive and contentious issues we will no doubt be exposed to even within the first few years of our teaching career." This is not uncommon, but perhaps more visible in tertiary studies that lead directly to careers ("Schooling for Hard Knocks": in Errington 2010).

As it was not feasible at the time to either add more days to the practicum, or to locate university classes within school settings, a simulated setting, using scenarios, seemed a practical solution (Errington 2011). 'Choosing to change' seemed obvious to me, as a reflective practitioner, as feedback from students had indicated to me that more needed to be done to connect university studies with experiences students would have in their professional placements and their future careers. Students had often spoken of the 'theory/practice divide' they experienced as preservice teachers, so this was an area I wanted to address in my practice.

Phase 2 – Planning for Change

MacNaughton and Hughes' (2009) second phase of Action Research is 'planning for change.' It is within this phase information is gathered from a variety of sources, including human as well as text and web-based resources. The lived experiences of practitioners and colleagues informed the selection of topics and content of scenarios; the characters within the scenarios; and the problems posed. Errington (2011) suggests that "degrees of

authenticity and relevance perceived within the scenario depend very much on students' perceptions of the teacher's 'professional' currency and his or her familiarity with the professional culture" (7).

From my professional reading, my own experience as an Early Childhood teacher and reports from other professionals, I identified five topics relevant to Early Childhood Education, not necessarily taught within the program, and only by chance encountered in professional experience. These were topics with multiple, rather than single solutions, and involved both cognitive and moral/ethical thinking: Ethics, Child Protection, Bullying, Partnerships and Brain Development.

Over the period of developing the scenarios, topics remained relatively constant because of their currency to early childhood practice. However, with the cutting back of the number of scenarios, the topic of brain development has become a 'demonstration-only' topic in recent years, to introduce learners to the ways of working with scenarios in this subject.

Each topic begins with a scenario description, based on actual experiences reported by Early Childhood professionals. Over the years and with feedback from practitioners, scenarios have been updated to include relevant changes to policy and practice. For example, the bullying scenario, which originated from the personal account of a victim, became a scenario that is told in the first instance in the child's words but then shifts to the teacher's perspective. The child, 'John', who is aged 7 years, describes his home situation, living with his mother and sister and moving to a new school. At the new school he tells of the teasing and bullying he has experienced, including an incident where the teacher was

away from the classroom and a number of children targeted him with verbal and physical bullying. When the teacher returned, it was John who was out of his seat and reprimanded and, having been threatened with further violence if he reported what had really happened, remained silent. When asked about marks on his arms, which had been caused by the bullies, John made up a false excuse to tell the teacher.

The scenario then changes, and is told from the teacher's perspective, as follows:

You are John's teacher. Last Thursday, you caught him outside the classroom when you were returning to class and gave him chores to do after school. He finished the chores and you noticed a big mark on his arm and asked him about it. After giving you a silly story about being bored and writing on his arm, he quickly left the class and headed home. You think about him - he's new to the school this year. He's small for his age, a bit awkward, and looks lost behind those thick glasses. He hasn't made many friends and isn't doing very well with his schoolwork. You'd like to talk to him, but he seems to keep very much to himself. On Monday when you were on lunchtime playground duty, Amanda (another student in your class) walked through the playground with you. You both saw John sitting by himself and Amanda told you, "that's because everyone picks on him."

After school that day, as you were tidying up and getting ready to go home, Phil Watts, the school's well-loved caretaker, told you what he witnessed at lunchtime. He said he saw three children spit on John's lunch as they walked by him, the last one knocking his lunch box to the ground. John picked up his lunch box, threw its contents in the bin and was sitting there clutching his lunchbox, when you and

Amanda walked by. After you had gone, Mr Watts went and sat beside John as he sobbed quietly to himself. Phil said to you that John told him, "I wish I was dead".

This scenario, which has been changed and modified over the years based on the action research processes, presents an ethical dilemma for “you”, the classroom teacher. The resolution required has also been modified over the years, and as it currently stands, is:

Using appropriate policies and literature, consider what actions you would take to respond to the situation. What will you do for John/ a child being bullied? What will you do for John’s family/ the family of the victim? What will you do for the bully and the class? Write this as a management plan to be presented to your principal.

Bullying and the other scenarios are supported by text-based information about the topic and multimedia resources such as personal anecdotes, video clips and children’s work samples. Information and resources vary for each scenario, supporting the notion that teachers and other professionals are regularly required to make decisions and judgments, often in the absence of all the information.

While I have trialed both individual and group scenario work, learners are currently placed in small ‘buzz’ groups of 5 or 6 people and are assessed as a group. They begin by reading through the scenarios and support material individually; then they proceed to work on the problem with their buzz group members. This includes further research and discussion. Suggestions they are given for buzz group work include drama and role play-playing activities, such as:

In your Buzz group, take on a role of a character in the scenario:

- John

- *John's teacher*
- *John's mother*
- *Phil Watts*
- *the School Principal*

Research and discuss the scenario, from the character's point of view, with your Buzz group.

As this is an externally-delivered subject, discussions between group members take place online, either through the internal Discussion Board or through other media sources chosen by the learners. While at first this seemed very challenging, with the increasing popularity of social media, it has become a user-friendly and practical way of working through the scenarios.

Buzz groups are asked to provide group solutions to the questions posed in a format authentic to the early childhood teaching environment. These come about from individual reading and research and group activities and information sharing. By the end of the second week of the scenario, each buzz group must post their solutions to a whole-class discussion. Learners are then required to read buzz group posts and provide feedback to one or two of them. Following this process, each buzz group compiles their final response, which is submitted as a group assessment piece in the third week.

Phase 3 – Creating Change

‘Creating change’, the third phase of MacNaughton and Hughes’ (2009) model, was the time when scenario materials met with feedback from students and colleagues and this,

accompanied by critical reflection, led to marked changes within the scenarios and with the process of scenario-delivery. Each of these sources of feedback, described below, have brought breadth and depth to this inquiry.

Student Feedback

From its inception in 2003 as a trial to its current delivery, SBL in this subject has invited and encouraged student feedback. Initial feedback revolved around two main themes: the first that the scenarios had made them aware, possibly for the first time, of moral and ethical issues they could encounter in their professional lives. One student commented, “Until reading the scenarios, I had not really considered the enormity of what we will be expected to deal with when we are out there teaching!”

The second theme was the benefit of working within a professional community.

Discussing the various situations online with my colleagues was on the whole a great learning experience. It accentuated the benefits of discussing problems to find the best possible range of solutions. A key element of teaching practice, I believe – discussion, collegiality and looking at a situation or problem from different perspectives.

Being able to have a discussion with others allowed me to see other points of view and get insights from other professionals.

Having online interaction with, and access to other participants' opinions is extremely valuable and an efficient way to communicate. I think it is really important to be continually interacting with colleagues.

One student, however, felt that dealing with ethical issues through scenarios was unrealistic as only limited information was given.

It was difficult to think hypothetically about ethical issues when we did not have the whole picture of what was going on in the scenarios...if we were actually in this situation we could make a judgment, but by being removed it made it difficult to really make any informed decision.

Students also recommended that the scenarios be included in a subject as part of the assessment, as this would further motivate learners to engage with them. This, along with personal reflection and feedback from peers, led me to introduce scenario-based learning as an assessable item in one of my online Early Childhood Education subjects. However, the notion of not providing 'the whole picture' was one that I needed to critically reflect upon, discuss, and further investigate. Through these processes, I decided to keep scenarios incomplete, with some information missing.

At the time of moving SBL to my subject, I revisited the literature and decided that the topics were still relevant, so they were updated with more current research and input from early childhood community members. This supports Lave and Wenger's (1991) notion of situated cognition, where the more realistic the content is, the more likely the engagement

and deep understanding of learners. I continued the process of students working in small groups and each group posting a group response to questions, but the assessable component was an individual task, based on both group and class discussions.

Learner feedback was mixed. Topics were considered interesting and relevant to 'real life situations', described by one student as a "good start to thinking about what actually could happen at school" with assessment tasks "very relevant to real life situations." However, a few students questioned why group work was not assessed, and one or two considered either the scenarios or expectations of the assessments to be a bit vague, one commenting: *"Some of the response questions were a little open to interpretation."* As stated earlier, this was a conscious decision on my part, to more closely resemble 'real life' situations. So while SBL was now an assessable component of a subject, there were still some issues to address, including the amount of content information provided and how to best assess learning using the scenarios.

Subsequent delivery saw some re-development of content, but there was still a lot of responsibility placed upon learners to research beyond subject materials. Feedback was generally positive, with learners stating that the process of deconstructing the scenarios gave them "an idea of resources available and steps to be taken." One reported that "Scenarios were realistic and you could see them having been played out in real life" and another said that "All information was extremely useful and issues discussed relevant to current teaching practices."

Redeveloped assessment included both group and individual scenario tasks, which were seen as "relevant to teaching and current issues." In recent years, this has changed to group

assessment only, due to time constraints. This has received mixed reviews from learners, who at times see group work as a less favourable aspect of SBL, one learner commenting, “Group work was difficult. Students wouldn’t start discussing until the final week.”

Another saw group work as “challenging, but the way it was delivered made it manageable and somewhat enjoyable.”

Students also provided feedback on other aspects of SBL, and their feedback has impacted on redevelopments in the scenarios. But overall, learners have shown enjoyment and deep engagement with SBL, remarking:

“In each of these topics, there is wide and far reaching implications, not just for teachers and schools, but for the wider community in dealing with sensitive issues.”

“I thought I knew quite a bit, but [the scenario] really opened by eyes to what could possible be happening to children.”

[SBL] “was worthwhile to introduce those who have never taught in a school to scenarios which are fairly certain to occur in their careers.”

Feedback from Colleagues

Feedback from university colleagues and early childhood community members has been sought throughout the entire action research process, beginning with the writing of scenarios and gathering of support material and extending to reassessing content and approaches and redeveloping key aspects of SBL. However, a key event in 2010/11 saw university colleagues having a huge impact on SBL in this subject. As the result of contributing to a book on scenario-based learning (Errington 2010), I became involved in a research project, *‘Embedding graduate attributes into four discipline areas using scenario-*

based learning'. We became a team of five academics from different disciplines (Psychology, Social Work and Community Welfare, Indigenous Studies, Teaching and Learning Development and Education), brought together by an interest in and belief about SBL. Thus began a learning journey to more deeply understand SBL, connect it with the university's graduate attributes, and improve our practices in delivering SBL. It was this experience that most reaffirmed and consolidated my use of SBL and ultimately the quality of learning I was able to provide to my students.

The aims of the project were: to establish the position of current SBL practice within the five academic areas; to enhance current offerings designed to embed graduate attributes via the use of SBL processes; to generate support materials and identify SBL champions; and to disseminate the project, engaging and enhancing staff input within and across discipline areas (Errington et al 2011).

The project began with 'strategic conversations' (Van der Hiejden 2002), where we shared our understandings and experiences of SBL, and continued with collaborative peer review, SBL presentations to colleagues, filming of SBL and the development of an SBL website for the university (Errington et al 2011). Working at two different campuses, our strategic conversations took place either at a cafeteria over cups of coffee or online, via Skype or email. In our conversations we shared how we were using SBL, with team members making further suggestions for its use in each discipline. We came to realize that with four types of scenarios, each of us favoured one scenario type in our teaching. As the project progressed, many of us discovered ways of utilizing all four types of scenarios in teaching in our discipline areas.

The process of peer review gave each team member the opportunity to receive feedback about their SBL teaching and learning from all other team members. In some cases this meant attending classes where scenarios were being implemented; in others, reading and reviewing scenarios, support materials, learner feedback and lecturer reflections. With the choice of areas in which we required feedback, I selected subject content (was there too much or too little and what was the quality of it?); lecturer input (how much information should I give them and how much should I intervene as they were working through the scenarios?); and assessment of SBL.

Feedback regarding content included that the introduction and instructions were clearly explained and debriefs following each scenario, something I had included since the original scenario development, were important components of the scenarios. For example, one team member noted, “The scenario and supporting information are relevant to future teaching experiences. There is a lot of useful information in this scenario.”

While content was considered appropriate, it was suggested that I cut back the scenarios from five to four, to allow more time for learners to explore each problem. Some team members found the amount of information in the scenarios ample; others suggested that, rather than adding more detail it was better to focus on quality of information presented and to allow learners to locate more of the material themselves. One cautioned, “Don’t overwhelm them with too much material.” Another suggested that learners could obtain missing information not only by research, but through role play and ‘hot-seating’, or questioning characters in the scenario. This opened the possibility of including drama, and perhaps other art forms in SBL and this continues to be an important aspect of my scenarios. The team supported the use of video and other multimedia resources to enhance

content but suggested possibly presenting scenarios in segments, and varying the central characters to include more diverse socio-economic and cultural positions.

As suggested, content was cut back to four scenarios, allowing learners three weeks to explore each problem. As mentioned previously, the brain development scenario, along with high quality examples of group and individual responses, are presented at the beginning of the subject as examples of upcoming work. Arts-based activities, such as 'hot-seating' and role plays have been added to scenarios, as indicated in the suggestions for group work in the bullying scenario above. Using drama techniques not only made the scenarios more interesting, but also gave specific roles to each group member within the scenario which, as later noted by a learner, made group work "less confrontational ... having roles that could be assigned to group members alleviated a lot of the stress that can come with group work." During content rewrites, I have varied some of the characters to include men and women in non-traditional roles and from a variety of socio-economic positions and cultural groups. This seemed to have added depth and interest to the scenarios.

Regarding lecturer input, the team advised me to limit this to giving directions about how the scenario might be followed, particularly during times when learners were off topic, or to intervene and guide learners to help them avoid an easy and early consensus. "Give feedback as needed" was one member's wise suggestion.

While the team supported the assessment of individual tasks, which was the method implemented at the time, they felt that since the learning process required learners to work

in small groups as well as on their own, group work should be assessed. They agreed that group assessment can be difficult, particularly in online delivery, and made suggestions about how it might be made equitable to all learners. Echoing learners' thoughts, team members suggested clarifying assessment criteria and offering exemplars of how assessments could be undertaken. One team member suggested making assessment as authentic as possible by implementing 'real world' tasks, such as writing a report for a principal; an informative article for parents; or a summary of current research to present at a staff meeting. These could be assessed "for depth and breadth of understanding."

Based on colleague and learner feedback, assessment was considerably modified. Group, as well as individual assessment was introduced and all assessment related to tasks authentic to the teaching profession, such action plans for a child being bullied and an acceptance speech for an inclusive practice award. Individual tasks expanded to include pedagogical decisions resulting from the application of an ethical response cycle for decision making; explaining duty of care and legal responsibilities to other teachers; and applying information acquired to curriculum delivery. Assessment is currently focused on group decision-making and includes peer feedback.

Critical Reflection

Critical reflection, where educators analyse their learning and teaching practices (Queensland Studies Authority [QSA], n.d.), is an effective way of improving teaching practice. The Queensland Studies Authority (n.d.) states that critically reflective practice promotes teachers to:

- *Regularly evaluate their approaches to teaching and learning*

- *Understand more about the positive impacts of high-quality effective pedagogies on children's learning*
- *Become more aware of the importance of high-quality interactions, including strategic intervention and substantive conversations to maximise children's learning*
- *Use action research approaches*
- *Co-construct learning with children and other partners so it is responsive to the child's family and community (2).*

Throughout this action research I have critically reflected on SBL and its implementation in my subject, as a teaching and learning approach. It has led to further investigation and collegial conversations about strategies and impacts of SBL, and ultimately to more responsive and better pedagogical practice, both in preservice teacher education and as a process learners can use in their future classrooms.

Combined with learner and colleague feedback, my critical reflections have led to decisions about both content and practice. For example, I now limit my input in SBL to devising the original scenario and challenges; giving instructions about how scenarios should be followed; and redirecting off-topic groups or groups needing more participation. I have trialed various arts-based methods of working within the scenario and various forms of authentic assessment. I have confirmed my notion of the great benefits of SBL and continue to use it as a key strategy in my teaching. Creating change reoccurs with every action research cycle, and continues in current delivery of the subject.

Phase 4 – Sharing the Change

MacNaughton and Hughes' (2009) final phase is sharing the lessons of change. Over the years, the process of sharing these lessons has evolved. It began on a smaller scale, sharing with key participants: learners and colleagues. But it has expanded. One of the outcomes of the research project, 'Embedding graduate attributes into four discipline areas using scenario-based learning', was the development of videos about SBL which are included on the university website and facilitate other academics use of the process. Internal, university-based workshops were another result of the project, and were held for academic staff in all disciplines. Further, there have been both group and individual presentations at national and international conferences, and a number of publications. From informal reports, this seems to have resulted in the increase of educators implementing SBL.

Conclusion

Implementing scenario-based learning and redeveloping it through action research cycles that included learner and colleague feedback and critical reflection, scenarios have been refined and now more closely align with learner needs and changes to early childhood policy and practice. The process has confirmed the success of SBL as a teaching tool, not only in teacher education but also across disciplines in university education. The process is continuing, and with every cycle new insights will be gleaned and changes implemented.

As Errington et al (2011) note, SBL "can make a difference to the lives of students in pursuit of professional meaning and identity". This sentiment is echoed in feedback from a learner, after engaging in the subject. She concluded: "I feel privileged to have participated

in this form of education and a lot more knowledgeable and prepared if ever faced with similar situations.”

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